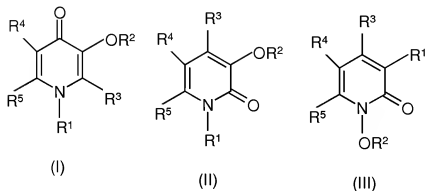


Claims:

1. **(Currently amended)** A method for treating a skin microcirculatory disorder (SMD) comprising topically administering to a patient in need thereof a hydroxypyridonone of formulae (I-III):



wherein

R<sup>1</sup> represents a (C<sub>1</sub>-C<sub>10</sub>)- alkyl, (C<sub>1</sub>-C<sub>10</sub>)-alkenyl, (C<sub>1</sub>-C<sub>10</sub>)-alkoxy, (C<sub>1</sub>-C<sub>10</sub>) hydroxyalkyl, (C<sub>5</sub>-C<sub>12</sub>) -aralkyl, (C<sub>3</sub>-C<sub>12</sub>)-cycloalkyl, (C<sub>1</sub>-C<sub>8</sub>)- carboalkoxy or (C<sub>1</sub>-C<sub>8</sub>)- carbamyl, or a (C<sub>10</sub>-C<sub>30</sub>)-peptide , or a (C<sub>3</sub>-C<sub>6</sub>) polyol or monosaccharide;

R<sup>2</sup> represents an hydrogen atom or a linear or branched, saturated or unsaturated lo (C<sub>1</sub>-C<sub>22</sub>)-acyl, optionally substituted by (C<sub>1</sub>-C<sub>8</sub>)-alkoxy, carboxy, (C<sub>1</sub>-C<sub>8</sub>) alkoxycarbonyl, amino, hydroxy, said amino and hydroxy being optionally (C<sub>1</sub>-C<sub>22</sub>)-acylated or - alkylated;

R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup>, each individually, represent a hydrogen atom, or (C<sub>1</sub>-C<sub>10</sub>)-alkyl, (C<sub>1</sub>-C<sub>10</sub>)- alkenyl, (C<sub>1</sub>-C<sub>10</sub>)-alkoxy, (C<sub>5</sub>-C<sub>12</sub> aryl) alkyl, (C<sub>5</sub>-C<sub>12</sub> )-cycloalkyl, (C<sub>1</sub>-C<sub>8</sub> carbo)-alkoxy or (C<sub>1</sub>-C<sub>8</sub>)- carbamyl group;

with the proviso that both R<sup>1</sup> and R<sup>3</sup> are not hydrogen;

or a dermatologically/cosmetically acceptable salt thereof.

2. **(Previously presented)** A method according to claim 1, wherein the skin microcirculatory disorder (SMD) is rosacea.

3. **(Previously presented)** A method according to claim 1, wherein the skin microcirculatory disorder (SMD) is cutaneous vasculitis.

4. **(Previously presented)** A method according to claim 1, wherein the skin microcirculatory disorder (SMD) is actinic purpura.

5. **(Previously presented)** A method according to claim 1, wherein the skin microcirculatory disorder (SMD) is a skin capillaritis.

6. **(Previously presented)** A method according to claim 8, wherein the skin capillaritis is, purpura annularis telangiectodes, contact allergy skin capillaritis, itching purpura, or eczematid-like purpura.

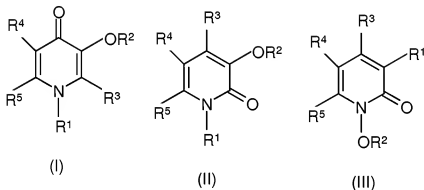
7. **(Cancelled)**

8. **(Withdrawn)** A method according to claim 1, wherein  $R^1$  and  $R^2$  are methyl,  $R^3$  and  $R^4$  are hydrogens.

9. **(Withdrawn)** A method according to claim 1, wherein  $R^1$  and  $R^2$  are ethyl  $R^3$  and  $R^4$  are hydrogens.

10. **(Withdrawn)** A method according to claim 1, wherein  $R^1$  is  $CH_2CH_2OH$ ,  $R^2$  is methyl or ethyl, and  $R^3$  and  $R^4$  are hydrogens.

11. **(Currently amended)** A method for the treatment of skin microcirculatory disorder (SMD) comprising locally applying to a mammal in need thereof of a therapeutically effective amount of hydroxypyridonone compound of formulae (I-III):



wherein

$R^1$  represents a (C<sub>1</sub>-C<sub>10</sub>)- alkyl, (C<sub>1</sub>-C<sub>10</sub>)-alkenyl, (C<sub>1</sub>-C<sub>10</sub>)-alkoxy, (C<sub>1</sub>-C<sub>10</sub>) hydroxyalkyl, (C<sub>5</sub>-C<sub>12</sub>)-aralkyl, (C<sub>3</sub>-C<sub>12</sub>)-cycloalkyl, (C<sub>1</sub>-C<sub>8</sub>)- carboalkoxy or (C<sub>1</sub>-C<sub>8</sub>)- carbamyl, or a (C<sub>10</sub>-C<sub>30</sub>)-peptide or a (C<sub>3</sub>-C<sub>6</sub>) polyol or monosaccharide;

$R^2$  represents an hydrogen atom or a linear or branched, saturated or unsaturated (C<sub>1</sub>-C<sub>22</sub>)-acyl, optionally substituted by (C<sub>1</sub>-C<sub>8</sub>)-alkoxy, carboxy, (C<sub>1</sub>-C<sub>8</sub>) alkoxycarbonyl, amino, hydroxy, said amino and hydroxy being optionally (C<sub>1</sub>-C<sub>22</sub>)-acylated or - alkylated;

$R^3$ ,  $R^4$  and  $R^5$ , each individually, represent a hydrogen atom, or (C<sub>1</sub>-C<sub>10</sub>)-alkyl, (C<sub>1</sub>-C<sub>10</sub>)- alkenyl, (C<sub>1</sub>-C<sub>10</sub>)-alkoxy, (C<sub>5</sub>-C<sub>12</sub> aryl) alkyl, (C<sub>5</sub>-C<sub>12</sub>)-cycloalkyl, (C<sub>1</sub>-C<sub>8</sub> carbo)-alkoxy or (C<sub>1</sub>-C<sub>8</sub>)-carbamyl group;

with the proviso that both  $R^1$  and  $R^3$  are not hydrogen;

or a dermatologically/cosmetically acceptable salt thereof

in admixture with a dermatologically/cosmetically acceptable carrier.

12. **(Previously presented)** A method according to claim 11, for the treatment of rosacea, cutaneous vasculitis, or actinic purpura.

13. **(Previously presented)** A method according to Claim 11, for the treatment of itching purpura, purpura annularis telangiectodes or contact allergy skin capillaritis.

14. **(Previously presented)** A method according to Claim 11, for the treatment of traumatic skin haemorrhage or actinic purpura.

15. **(Withdrawn)** A method according to claim 11, wherein  $R^2$ ,  $R^3$ ,  $R^4$  and  $R^5$ , each individually, represent a hydrogen atom.

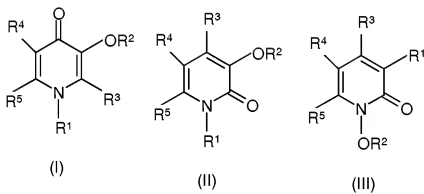
16. **(Previously presented)** A method according to claim 11, wherein  $R^1$  and  $R^3$  each individually, represent  $(C_1-C_4)$ - alkyl, hydroxyalkyl or alkoxy.

17. **(Withdrawn)** A method according to claim 11, wherein said  $R^2$  acyl group is formed by unbranched, naturally occurring caprylic acid, capric acid, lauric acid, myristic acid, palmitic acid, palmitoleic acid, stearic acid, oleic acid, vaccenic, linoleic acid, alpha-linolenic acid, eleostearic, delta-linolenic acid, gondoic acid, dihomogamma-linolenic acid, arachidonic acid, eicosapentaenoic acid, docosenoic acid, docosatekanoic acid, docosapentaenoic acid, docosapentaenoic, docosahexanoic acid, nervonic or a mixture thereof.

18. **(Withdrawn)** A method according to claim 11, wherein said  $R^2$  acyl is a  $C_{1-8}$  which is branched at the carbon atom adjacent to the carbonyl group.

19. **(Previously presented)** A method according to claim 11, wherein said hydroxypyridonone is 1, 2 dimethyl-3-hydroxy-4-pyridinone (deferiprone); 1,2-diethyl-3- hydroxy- 4-pyridinone; 1-methyl-2-ethyl-3-hydroxy-4-pyridinone or 1-methyl-2-(2-methoxy-ethyl)-3-hydroxy-4-pyridinone.

20. **(Currently amended)** A method for treating skin capillaritis, cutaneous vasculitis, itching purpura, purpura annularis telangiectodes, contact allergy skin capillaritis, traumatic skin hemorrhage or actinic purpura [.] comprising topically administering to a patient in need thereof a hydroxypyridonone of formulae (I-III);



wherein

$R^1$  represents a ( $C_1$ - $C_{10}$ )- alkyl, ( $C_1$ - $C_{10}$ )-alkenyl, ( $C_1$ - $C_{10}$ )-alkoxy, ( $C_1$ - $C_{10}$ ) hydroxyalkyl, ( $C_5$ - $C_{12}$ )-aralkyl, ( $C_3$ - $C_{12}$ )-cycloalkyl, ( $C_1$ - $C_8$ )- carboalkoxy or ( $C_1$ - $C_8$ )- carbamyl, or a ( $C_{10}$ - $C_{30}$ )-peptide , or a ( $C_3$ - $C_6$ ) polyol or monosaccharide;

R<sup>2</sup> represents an hydrogen atom or a linear or branched, saturated or unsaturated lo (C<sub>1</sub>-C<sub>22</sub>)-acyl, optionally substituted by (C<sub>1</sub>-C<sub>8</sub>)-alkoxy, carboxy, (C<sub>1</sub>-C<sub>8</sub>) alkoxycarbonyl, amino, hydroxy, said amino and hydroxy being optionally (C<sub>1</sub>-C<sub>22</sub>)-acylated or - alkylated;

R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup>, each individually, represent a hydrogen atom, or (C<sub>1</sub>-C<sub>10</sub>)-alkyl, (C<sub>1</sub>-C<sub>10</sub>)- alkenyl, (C<sub>1</sub>-C<sub>10</sub>)-alkoxy, (C<sub>5</sub>-C<sub>12</sub> aryl) alkyl, (C<sub>5</sub>-C<sub>12</sub> )-cycloalkyl, (C<sub>1</sub>-C<sub>8</sub> carbo)-alkoxy or (C<sub>1</sub>-C<sub>8</sub>)-carbamyl group;

with the proviso that both R<sup>1</sup> and R<sup>3</sup> are not hydrogen;

or a dermatologically/cosmetically acceptable salt thereof.